



Support News 

May 1, 1994

Volume I, Issue 1

*“Get Of the Highway
and Into the Alley”*

Premier
Issue!

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Inside Information...

About *The Information Alley*

The *Information Alley*™ is a publication of Apple Computer, Inc., Support Information Services. It is available to all Apple customers and Apple computer users through a variety of on-line services and direct email capability (see **Where to Find the Information Alley** on page 3).

The goal of the *Information Alley* is to help Apple computer users get full use of their Apple computers, peripherals, and software.

Articles chosen for the *Information Alley* come from many sources, both from inside Apple Computer and from our customers and users. Sources include the Technical Information Library, Apple Assistance Center, New Technology Group, World Wide Product Technical Support, Apple Users Groups, and other technical groups and organizations.

Submissions and Letters to the *Information Alley*

We welcome articles that help Apple computer users become more knowledgeable about the functionality of their systems, explain or illustrate complex features or functions, or that describe technical tips or techniques. Send submissions to:

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email: alley@apple.com

We also welcome letters to the editor and suggestions for future articles. Please send all letters to the preceding address.

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The *Information Alley* is produced using FrameMaker 4.0 on a Macintosh Quadra 610 running System 7.

Published bi-weekly by

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Please share when done!

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Welcome to the *Information Alley*

By Janet Christian

Why the *Information Alley*?

The *Information Alley* is a new publication of Apple Computer, Inc., published bi-weekly by Support Information Services (SIS). The *Information Alley*'s goal is to provide Apple computer users with the technical knowledge they need to use their Apple computer systems to their fullest potential.

To this end, we have scoured every possible technical source both inside and outside Apple Computer. Our hope is to give you the best of the best in each issue.

We encourage feedback from our readers. If you have a technical topic you would like to share with others, or if you have an idea for an article, please let us know. We want the *Information Alley* to be a forum for communication in as many ways as possible.

Get Off the Highway

The *Information Alley* sprouted from an idea by Jan Costenbader, Manager of Support Tools & Information, and John Fenwick, Manager of Support Information. They nicknamed their idea "Get Off The Highway". Their idea was

simple – sometimes the information highway can get clogged and information can pass quite slowly. The more "side roads" available, the more likely you will get where you want to go in a timely manner. A source like the *Information Alley* lets you "get off the highway and onto the side streets (or into the alley)", finding the information you want in a convenient, local, easy-to-use format.

Where to Find the *Information Alley*

The *Information Alley* is available through:

- AppleLink
- eWorld
- CompuServe
- America Online
- Internet

Reprinting of Articles

We welcome reprints. Check the inside cover page for information about reprinting whole or partial articles from this publication.

Thanks to the Writers

I would like to thank those in Support Information Services and all the others who provided the great articles for this first issue. Many of them

are Apple veterans, with years of experience on a variety of products. This publication would not be the quality it is without their help.

Thanks to Alex Guidice

Many thanks to Alex Guidice, who works in the PowerBook Group of the Apple Assistance Center for his hard work in designing the official logo for the *Information Alley*. Great work, Alex – we were thrilled.

Let Us Hear From You

We want to hear from you about the *Information Alley*. Tell us what you think of the articles and of the whole "look and feel". Please complete the Tell Us What You Think form on the following page and return to the address, email, or fax number indicated.

The *Information Alley* is here to help you, so we want to be as responsive to your needs as possible.

If you have any questions about the *Information Alley*, please contact us at the address, email address, or phone numbers listed on the previous page.

In the meantime, we hope you find this magazine to be one of your most useful and informative tools. 🍏

Text to Speech on AV Systems

By Howard Hudson

If you have an AV computer, you may want to use its capabilities in processing speech and sound. This article describes how to use your computer to generate spoken documents from typed ones.



An exciting Technology available in the AV machines is Text-to-speech. Text-to-speech lets text in applications be "spoken"

by the computer. Solutions for this technology include proof reading without the user focusing on the computer and storage of many hours of "voice" (text takes up 1,000 times less space than even the lowest quality digitized speech).

The version of TeachText (7.2) on the hard drive of the Quadra 840 AV and 660 AV and the Centris 660 AV supports the PlainTalk Text-to-Speech feature. Other applications may not yet support this feature, but are expected to add it in the future where it may be useful.

Speech Recognition, or, the ability of the computer to respond to spoken commands, does not need to be active, however the PlainTalk Software, which includes the voices, must be installed for this to work.

The Speech Manager

The Speech Manager lets users switch voices within applications. Any selected text can be spoken back by selecting the appropriate

command from the **Edit** menu and users can direct an appropriately designed application to change between voices in a body of text to create a dialog effect.

Steps to Follow

Follow these steps to convert text to speech:

STEP	ACTION
1	Launch TeachText 7.2 and notice the Voices sub-menu under the File menu. This lets you change voices between spoken selections without having to open the Speech Setup Control Panel (the default voice is Female Voice, Compressed).
2	Close the untitled window.
3	Open the <i>Read Me</i> document from the File menu.
4	If no text is selected, you can issue the Speak All menu command (⌘H) and the entire text is read back. If you select a portion of text, the menu changes to say Speak Selection and just that is read back. Even though some <i>ReadMe</i> files are not editable (so users don't change them) and therefore do not let portions of text be selected, TeachText lets the user select Speak All and have the contents of the <i>ReadMe</i> spoken back. To stop speech in the middle of speaking back, select Stop Speaking from the File menu.

If your applications do not have an option for Text-to-speech, you may want to check with the application developer about plans to integrate Text-to-speech into the application.

Howard Hudson is a Product Specialist in the New Technologies Group. The NTG brings the Apple Assistance Center up to speed on new Apple products and technologies. 🍏

Using the SIMM Stack

By Mark Hansen

The SIMM Stack is a HyperCard based stack which contains visual and text based information relating to memory upgrade requirements, specifications, and capabilities of Apple Macintosh computers and applicable LaserWriter printers.

The stack is updated at major product introductions.

Read **On-line Services Product Support Information** on page 8 to find out about the on-line locations where you can find the SIMM Stack.



This is the first screen of the HyperCard SIMM Stack. The material is grouped according to product family. 🍏

From DOS to Mac and Back

By Janet Christian

If you are running on a Macintosh that includes a DOS compatibility card (such as a Quadra 610 or Centris 610), you can easily switch between the DOS and Macintosh operating systems without disturbing the applications running in either partition – there is no need to restart each time or close active applications.

Once you set the PC Setup Control Panel to On (and restart once to “activate” it), you switch between operating systems by pressing the “hot key” sequence defined in the PC Setup window. The default sequence is **⌘Return**.

When you press **⌘Return**, your system immediately switches from the current operating system to the alternate operating system. Your keyboard and mouse work with the currently active operating system.

Note: Your mouse is only active in DOS if you are running Windows 3.x (which includes a mouse driver) or if you use a Microsoft-compatible mouse driver. Two mouse drivers found on most on-line services that work properly are **DRV624.ZIP** and **MOUSE701.ZIP**.

Whether or not other peripherals attached to your system work in DOS depends on your particular system hardware configuration.

Copying Between Operating Systems

You can easily copy a variety of information (such as text and graphics) between operating systems. Read your **Macintosh DOS**

Continued on the next page...

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Compatibility Card User's Guide for a complete description of the types of information you can copy.

You can, for example, create a graphic using a graphics tool in one operating system, and then copy and paste it into a document in the other operating system.

Using Separate Monitors

If you use separate monitors for DOS and Macintosh, when you press **⌘Return** while in the Macintosh operating system, your Macintosh screen dims, active applications continue unaffected, and your DOS monitor becomes active.

When you press **⌘Return** again, your Macintosh screen brightens and your keyboard and mouse again interface with the Macintosh monitor. Your DOS screen does not dim and any DOS applications you started continue running.

Using a Single Monitor

If you use a single monitor for both operating systems, when you press **⌘Return** your current desktop (open folders, active windows, etc.) is saved and replaced by the desktop you are switching to.

As with multiple monitors, active applications continue running even though you cannot see them on your desktop. When you switch back, the saved desktop redisplay, showing any new information (such as a completed process that you began before switching). 🍏

Getting the Most Out of Your Color StyleWriter Pro

By Wayne Brissette

Paper Choice

The Color StyleWriter Pro printer is the first color ink jet printer offered by Apple for home use. This printer can provide you with vivid color images. However, you may not be getting the most out of your Color StyleWriter Pro if you use standard photocopier or laser paper. Standard paper absorbs the ink and the final output looks a bit dull. But there is a way to get much brighter images from your printer.

Use a special type of paper designed for a color ink jet printer. Most large paper outlets carry this type of paper in packages of 250 sheets. You can also find smaller packages at some of the larger computer stores that sell the Color StyleWriter Pro or the Hewlett-Packard color DeskWriter. The color ink jet paper has one side coated with a clay based substance that doesn't let the paper absorb the ink.

Print Dialog Box Settings

Paper Type

Select the Paper Type that matches the type of paper you use. The choices are: Plain, Coated, Back Print, and Transparencies.

Print Quality

There are three settings that effect the output quality. Use Best for the highest quality output with little or no banding.

Use Normal for high quality with some banding and increased speed. Use Draft for the greatest speed possible.

Halftone Options

The halftone options are available by clicking on the color button:

- The Halftone option determines how the printer blends the four ink colors to create different color combinations.
- The Pattern option works well for charts and graphs.
- The Scatter option works well for photographic images.

ColorSync

The ColorSync software makes colors look the way you expect no matter what device you use to view them – Monitor, printer, or scanner. After turning on ColorSync, choose the option from the pop-up menu that best describes your document:

- Photographic – for complex picture with subtle tones
- Business Graphic – when matching the vibrancy of the color is more important than matching the exact hue
- Spot Colors – when you're using color calibrated equipment

You may want to experiment with these options to get the best results. 🍏

Looking for Something?

By Charlie McCabe

Where to Find Apple Software Updates

Apple Software Updates include the latest free versions of Apple software, including most printer drivers, System Enablers, and updates to communication, networking, and utilities software. Customers should read the posted Apple Software License Agreement before downloading any software.

Currently, Apple's Customer Service Division (CSD) posts Apple software updates to these on-line services:

- AppleLink
- eWorld
- Internet

AppleLink

Apple software updates are posted to the APPLE SW UPDATES board located in this path:

APPLELINK SERVICES (MAIN WINDOW)

SOFTWARE SAMPLER

APPLE SW UPDATES

eWorld

Apple software updates are posted to the Apple Software Updates board located in this path:

COMPUTER CENTER

APPLE CUSTOMER CENTER

APPLE SOFTWARE UPDATES

Internet – Apple Computer Higher Education Gopher Server

Apple recommends using TurboGopher client software to access the Apple Computer Higher Education Gopher server. The *USA Service, Support & Training* folder is located in this path:

HOME GOPHER SERVER

COMPUTER INFORMATION

APPLE COMPUTER HIGHER
EDUCATION GOPHER SERVER

APPLE SUPPORT AREA

APPLE SW UPDATES

Getting There From Here

TurboGopher Client software is available via anonymous File Transfer Protocol (using the `ftp` application) in the `/pub/gopher` directory to:

`boombox.micro.umn.edu`

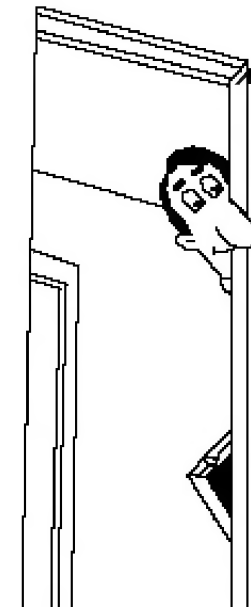
Using this Client software, you can connect to the Apple Computer Higher Education Gopher server:

The host address is:

`info.hed.apple.com`

The IP number is:

`134.84.132.13`



Where Else to Find Apple Product Support

All Apple products purchased in the USA are bundled with free "up and running" support for as long as you own your Apple product. Additionally, all hardware products (computers, printers, and other peripherals) come with one year free service, including any replacement parts and labor.

Continued on next page...

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The telephone numbers listed here are one point of access for obtaining support or service. Additionally, the Technical Information Library (TIL) is Apple's official technical support database, with thousands of articles on Apple products. The TIL is on a variety of on-line services; see the *On-line Services Product Support Information* section of this article for further information.

On-line Services Product Support Information

Apple publishes basic "how to contact Apple support" information, Apple software updates, the SIMM stack, the Apple Technical Information Library (Apple's official technical support database), and other goodies to these on-line services:

- AppleLink

APPLELINK SERVICES
(MAIN WINDOW)

SUPPORT

- eWorld

COMPUTER CENTER

APPLE CUSTOMER
CENTER

QUICK ANSWERS

- America Online

(Club Performa area – for Macintosh Performa owners only)

- Internet
 - Apple Tech Info Library
- Apple software updates and Apple support information

HOME GOPHER
SERVER

COMPUTER
INFORMATION

APPLE TECH INFO
LIBRARY

See **Internet – Apple Computer Higher Education Gopher Server** on page 7 for the path and access instructions.



Connecting to the
Home Gopher
Server

The Home
Gopher Server
IP number is:

134.84.132.4

The host address is:
consultant.micro.umn.edu

Use the TurboGopher Client software to access this host. Read **Getting There From Here** on page 7 for more information.

Watch the *Information Alley* for additional Internet and commercial on-line services.

Off-line Information Sources

If you can't find what you want on-line, try one of these "off-line" sources of information:

408-996-1010 – Apple Corporate Telephone Number (1 Infinite Loop, Cupertino, CA 95014)

800-SOS-APPL – "Up and running" customer Technical Support (Apple Assist. Center)

800-505-0171 – Apple Fax-on-demand system (prior-to-purchase information faxed directly to you on any number of Apple products.)

800-538-9696 – Apple Referral Center (Resellers/MUG/Trainer Locator)

800-365-3690 – Apple Referral Center (for Newton resellers) (extension 100)

800-776-2333 – CAC (Customer Assistance Center) (for pre-sales product information)


800-769-2775 – Apple Order Center (The Hibbert Group) Order official Apple software upgrade kits, such as HyperCard 2.2, System 7.1 Update Kit, System 7.1 on 800K disks, System 7.1 volume purchase, etc.)

800-950-2442 – AppleCare orders (extension 200) For ordering extended warranty and service products

800-282-2732 – APDA USA (Apple Prog. & Devel. Assn.) To order Apple developer information and tools.

408-974-4897 – Developer Services (information on how to become a registered Apple developer)

408-974-4667 – Licensing (Information on licensing Apple software products for distribution by third parties.)

408-974-7910 – Worldwide Disability Solutions (information for special needs customers on using Apple and 2rd party products.) 

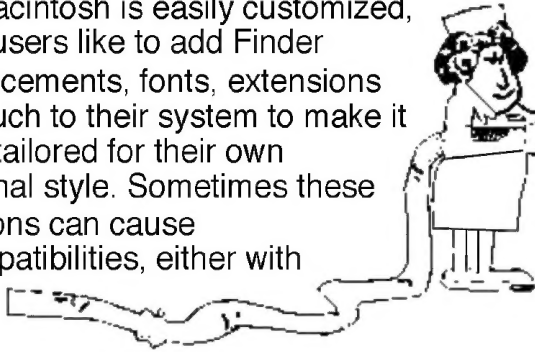
System Software

The Why and How of a Clean Install

By Stephanie Hahn (7.1 clean install steps from the Technical Information Library)

Why Do a Clean Install?

Most Macintosh computers come from the factory with the system software installed on the hard drive, and on the floppy disks, which can be thought of as a “clean” version of the system software. That is, the extensions, control panels, fonts, System, Finder—in essence, the entire contents of the System Folder—come solely from Apple, and have not been modified in any way. Because the Macintosh is easily customized, most users like to add Finder enhancements, fonts, extensions and such to their system to make it more tailored for their own personal style. Sometimes these additions can cause incompatibilities, either with



another extension, or with that particular version of system software. These incompatibilities can cause the Macintosh to hang, generate errors, or crash unexpectedly. Another potential problem that may cause such behavior might be actual corruption of a key system component, such as the System, Finder or an extension or font.

The most common incompatibilities occur when users upgrade from an older version of System Software to a newer version. Many times the extensions or control panels that are already installed in the System Folder need to be upgraded to work with the newer version. Installing “over” an existing System does not remove or disable any incompatible System Folder components. The Installer simply installs over the existing System Folder, updating only the Apple software; it leaves any third party additions alone.

A Clean Install is a key trouble-shooting step

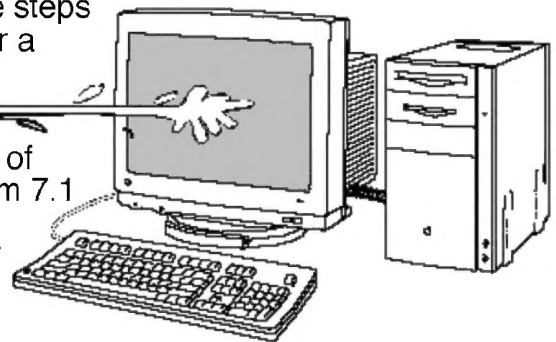
whenever your Macintosh is hanging, crashing, or behaving “unusually”. To test for a potential extension or control panel conflict is to restart the Macintosh while holding down the **Shift** key. This disables ALL extensions and any control panels that load as a system extension.

If your Macintosh functions properly after holding down the **Shift** key, then a clean install should be your next step. If holding down the **Shift** key doesn't help, you might still have a corrupted system component, and need to cleanly install in any case.

How To Do a Clean Install

These steps are for a clean

install of System 7.1 from floppy disks.



Step 1 – Restart with Disk Tools

Shut down your Macintosh, insert Disk Tools in the floppy drive, and turn on the computer. At the desktop, the Disk Tools floppy disk's icon should be in the upper-right corner of your screen with your hard disk's icon below it.

If the computer ejects the Disk Tools disk, make sure you have an Apple SuperDrive (formerly FDHD) that reads high-density disks. If your computer doesn't have a SuperDrive, you need System Software version 7.1 on 800K disks. To get the 7.0 to 7.1 upgrade, call 1-800-769-2775. (See your dealer for the upgrade from other versions.)

If you have a Macintosh computer that requires a System Enabler, you should use the Install Me First disk that came with your computer. The standard 7.1 Install disk doesn't contain the

Continued on next page...

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Enabler, and won't start up a Macintosh that requires one.

Step 2 – Run Disk First Aid

Run Disk First Aid to detect and repair problems with a hard disk:

STEP	ACTION
1	Open the Disk Tools disk, and double-click on the Disk First Aid icon. In the window that appears, be sure the main hard drive is selected. If it isn't, click the Drive button to select the main hard drive.
2	Click once on Open and then once on Start . Disk First Aid checks your hard disk for any potential problems. If it finds problems, you should let the software repair them.
3	Repeat this procedure for each hard disk attached to the system.
4	When you're finished verifying the hard disks, choose Quit from the File menu to return to the desktop.

If Disk First Aid can't repair your hard disk, back up the hard disk and re-initialize it using the appropriate formatting utility for that drive. For Apple drives, use Apple HD SC Setup.

Step 3 – Update Hard Disk Drivers

If you don't have an Apple hard drive, or you use third-party software to format your hard disk, don't use the Apple HD SC Setup utility. However, you should contact your hard drive vendor to verify that your formatting software is compatible with system software version 7.1.

If you have an Apple hard drive, update the drivers with the version of Apple HD SC Setup that's on the Disk Tools disk:

STEP	ACTION
1	Double-click the HD SC Setup icon on the Disk Tools disk to open it.
2	Click on the Update button.
3	When finished, click Quit to return to the desktop.

Sometimes HD SC Setup can't update the hard disk driver (indicated by a "dimmed" **Update** button). Here are some possible causes and solutions:

- If a third-party utility formatted your hard disk, you should obtain the latest version of the utility to update your hard drive.
- If a version of Apple HD SC Setup more recent than the version on the Disk Tools disk formatted your hard drive, don't update the hard disk drivers.
- If an earlier System 6 version of Apple HD SC Setup formatted the drive, it may not have left enough room for the updated driver. You don't have to update the hard disk drivers. However, if you intend to use file sharing or have a Macintosh that can use virtual memory, then you need to back up the disk and re-initialize it with HD SC Setup. This erases the disk, so be certain you back up the hard disk first.
- If the driver is corrupt, the Macintosh doesn't recognize the drive (that is, the drive doesn't show on the desktop when you start from a floppy disk). You may wish to re-initialize it with HD SC Setup. This erases the disk, so be certain you back up the hard disk first.

Step 4 – Check Available Hard Disk Space

Be sure you have at least 5MB available on the hard disk where you plan to install the system software. Open the hard disk's window. Open the **Views** control panel and select **Show disk info in header**. The amount of available disk space appears in the upper-right corner of any open window.

If there's less than 5MB available, you need to delete unnecessary files by moving them to the **Trash**. Choose **Empty Trash** from the **Special** menu, to get more available disk space. (You can copy files onto floppy disks or other media before moving them to the **Trash**.)

Step 5 – Disable the System Folder

Disable the System Folder by moving the

Continued on next page...

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Finder and renaming the System Folder:

STEP	ACTION
1	Open your hard disk's icon and locate the System Folder.
2	Open the System Folder and locate the Finder.
3	Create a new folder and name it <i>Old Finder</i> .
4	Move the Finder into this new folder.
5	Close the System Folder's window and rename the System Folder <i>Storage</i> .
6	Close any open windows on your desktop.

Step 6 – Restart Your Computer

Choose **Restart** from the **Special** menu. The system automatically ejects the Disk Tools disk, and after a few seconds you should see a picture of a disk with a flashing question mark.

If your Macintosh starts up from the hard drive, you have an extra System Folder on the hard disk. Delete or disable it, then restart.

When you see the flashing question mark on your screen, you can continue. If you still don't see this on your screen, and you're installing the system software on the internal hard disk, turn off your Macintosh and all attached peripherals. Then disconnect the SCSI cable from the back of the Macintosh. Start your Macintosh again.

Step 7 – Install System 7.1

Install system software version 7.1:

STEP	ACTION
1	When you see the flashing question mark, insert the Install 1 or Install Me First disk into the Macintosh. The computer starts up with the system files on the Install disk.
2	Once the <i>Welcome to the Apple Installer</i> message appears, click on OK .
3	Click on Install .
4	Insert the other disks when the Installer asks you to.

Step 8 – Verify Problem Resolution

After performing a clean installation, verify that you resolved the problem before adding anything to the new System Folder.

Step 9 – Install Non-Standard Items

You can now reinstall the non-standard items from the old System Folder (which you named *Storage* in **Step 5**) such as fonts, screen savers, device drivers, and so on. (If possible, reinstall these items from their original disks.)

If the original disks aren't available, you may move the non-standard items from the Storage folder to the new System Folder. Be careful not to replace anything that's already in the new System Folder. Only move items that aren't already in the new System Folder:

STEP	ACTION
1	Open each corresponding folder within the System Folder and the Storage folder and then compare the contents.
2	Move anything that isn't already in the new System Folder and its subfolders from the Storage folder and its subfolders.
3	Restart your Macintosh.

Step 10 – Troubleshooting Extension Conflicts

If you've installed any system extensions or control panels, you'll probably see their icons line up across the bottom of the screen when you restart. They load into memory at start-up time and modify the standard behavior of the operating system.

Step 11 – Verify Extension (INIT) Conflict

If the Macintosh fails to restart or behaves erratically, you probably have an incompatible or conflicting system extension or control panel. Verify this problem:

STEP	ACTION
1	Be sure the Caps Lock key is off.
2	Restart. After the smiling computer displays, hold down the Shift key.

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STEP	ACTION
3	Release the Shift key when the Welcome to Macintosh, Extensions Off message appears.
4	When the Macintosh is ready, try to recreate the erratic behavior.

If the problem no longer occurs, you have a conflicting extension or control panel. Continue with **Step 12**.

Step 12 – Remove and Replace INITs in System Folder

STEP	ACTION
1	Create a new folder on the desktop.
2	Open the System Folder, Extensions folder, and Control Panels folder, and choose by Kind from the View menu. Move all items of Kind “system extension” or “control panel” to this new folder.

STEP	ACTION
3	Close the System Folder, and restart the Macintosh.
4	Attempt to recreate the problem.
5	Move one item from the new folder on the desktop to the closed System Folder and restart the Macintosh.
6	Attempt to recreate the original problem.

Repeat steps 5 and 6 for each item in the new folder on the desktop until the problem recurs. The last item returned to the System Folder is probably the cause of the problem.

Step 13 – Final Steps

Verify that your applications are performing normally. If not, refer to the application manual or contact the vendor.

When the Macintosh behaves as expected, and you are sure you have removed any necessary items from the Storage folder, move the Storage folder to the Trash, and choose **Empty Trash** from the **Special** menu. 🍏

VRAM Amounts and Color Choices

By Wayne Brissette

The amount of Video RAM (VRAM) you have in your Macintosh computer determines how many colors you can use on your monitor.

Depending on what size monitor you have, increasing the amount of VRAM you have installed, increases the amount of colors on your monitor. The VRAM chart on the following page provides a complete matrix of Macintosh computers and their VRAM requirements.

How to Read the Chart

The columns in the chart include this information:

- **MACINTOSH**
The computer type
- **ON BOARD**
The amount of VRAM on the Logic board
- **VRAM SLOTS**
The number of slots for VRAM SIMMs
- **RAM SPEED**
The Random Access

Memory (RAM) speed

- **SIMM SIZE**

The SIMM size that can be used.

Using the Chart to Calculate Maximum VRAM

You can easily use the information in the VRAM chart and the following formula to determine the maximum amount of VRAM you can have in your particular system:

VRAM Slots x SIMM Size =
Maximum amount of VRAM
you can have.

VRAM Chart

MACINTOSH	ON BOARD	VRAM SLOTS	RAM SPEED	SIMM SIZE
Color Classic	256K	1	100 ns	256K
LC	0K	1	100 ns	256K or 512K
LC II	0K	1	100 ns	256K or 512K
LC III	512K	1	100 ns	256K or 512K
LC 475	0K	2	80 ns	256K or 512K
LC 520	512K	1	80 ns	256K
IIvx	0K	2	100 ns	256K or 512K
IIvi	0K	2	100 ns	256K or 512K
Centris 610	512K	2	100 ns	256K
Centris 650	512K	2	80 ns	256K
Centris 660AV	1MB	0	80 ns	0
Quadra 605	0K	2	80 ns	256K or 512K
Quadra 610	512K	2	100 ns	256K
Quadra 650	512K	2	80 ns	256K
Quadra 660AV	1MB	0	80 ns	0
Quadra 700	512K	6	100 ns	256K ²
Quadra 800	512K	2	80 ns	256K
Quadra 840AV	1MB	4	80 ns	256K
Quadra 900	1MB	4	80 ns	256K ²
Quadra 950	1MB	4	80 ns	256K ²
Power Macintosh 6100/60 ¹	n/a	n/a	n/a	n/a
Power Macintosh 7100/66 ¹	1MB	4	80 ns	128K x 8 bit
Power Macintosh 8100/80 ¹	2MB	4	80 ns	256K x 4 bit
Performa 400, 405, 410, 430	0K	1	100 ns	256K or 512K
Performa 450	512K	1	100 ns	256K or 512K
Performa 460, 466	512K	1	100 ns	256K or 512K
Performa 475, 476	0K	2	80 ns	256K or 512K
Performa 550	512K	1	80 ns	256K
Performa 600	0K	2	100 ns	256K or 512K

Notes:

¹ Power Macintosh models utilize DRAM based video, they are only expandable with the VRAM Expansion Card installed. The Power Macintosh 6100/60 is not expandable.

² VRAM SIMMs in the Quadra 700, Quadra 900, and Quadra 950 must be installed in pairs of two SIMMs. 🍏

Power Macintosh

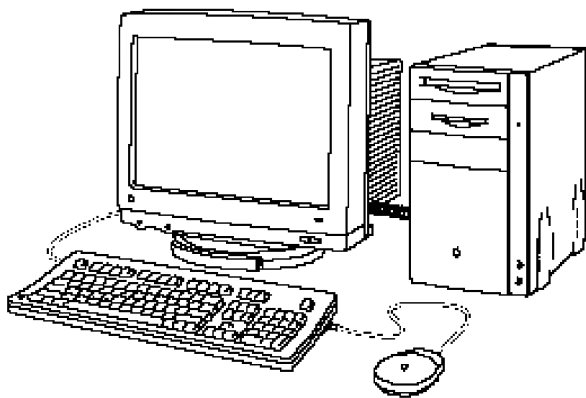
LAN Software Compatibility

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This article details the Power Macintosh compatibility of these Apple client and server software products:

- AppleSearch
- AppleShare family
- Apple Remote Access family
- Apple Internet Router
- A/UX
- System 7 Pro/PowerShare Collaboration Servers

For each product, there is detailed information regarding compatibility at introduction for existing products, and revision schedules and distribution plans for Power Macintosh



compatible upgrades. Some of these revisions will coincide with the PowerPC Server introduction in May 1994. Others will follow shortly thereafter. The **Apple LAN Systems – Power Macintosh Server Software Compatibility Matrix** on page 16 and the **Apple LAN Systems – Power Macintosh**

Client Software Compatibility Matrix on page 17 summarize the compatibility and upgrade information.

Product Upgrade Strategies

AppleSearch

- Compatibility as of Mar. 14
AppleSearch 1.0 server is incompatible with Power Macintosh at the March 14th Desktop Introduction. AppleSearch Server 1.0 Demo Version on Trial CD is also incompatible with Power Macintosh. This is because AppleSearch Server 1.0 will only run on 68040-based Macintosh computers and the Power Macintosh 68000 emulator reports itself as a 68020.

The AppleSearch 1.0 client, running in emulation mode, is compatible with Power Macintosh on March 14th.

- Power Macintosh version
AppleSearch 1.0.1 Patch will provide compatibility with Power Macintosh. Version 1.0.1 will be available as a Patch which can be installed over AppleSearch 1.0. server and will run in emulation mode on the Power

Macintosh.

Version 1.0.1 will also run on 68040-based Macintosh computers, but there is no need to upgrade since there is no difference between version 1.0 and version 1.0.1 on 68040-based systems.

AppleSearch 1.0.1 Patch will be available in May 1994, and will contain two versions — one for the standard AppleSearch 1.0 server and one for the AppleSearch Trial CD.

- Upgrade distribution
AppleSearch Server 1.0.1 will be free and distributed via a Patch which will be posted on AppleLink, on Apple's Internet ftp server, and on Service Provider's servers. AppleSearch 1.0.1 Patch will also be added to the AppleSearch 1.0 kits for new AppleSearch purchases. The AppleSearch Trial CD 1.0.1 Patch will always accompany the AppleSearch 1.0.1 Patch.
In the United States, the AppleSearch 1.0.1 Patch will also be available, for free, directly from Apple at 1-800-SOS-APPL.

AppleShare

- Compatibility as of Mar. 14
AppleShare 3.0.3 is incompatible with Power Macintosh and is not supported by Apple. Apple

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recommends that all customers wishing to run AppleShare on Power Macintosh upgrade to AppleShare 4.0.2.

AppleShare 4.0 and 4.0.1 servers are incompatible with Power Macintosh at the March 14th Desktop Introduction. This is because AppleShare 4.0 and 4.0.1 servers will only run on 68040-based Macintosh computers and the Power Macintosh 68000 emulator reports itself as a 68020.

AppleShare Pro is incompatible with Power Macintosh since AppleShare Pro only runs on A/UX, and A/UX does not run on Power Macintosh.

The AppleShare Workstation 3.5 (client software) is compatible with Power Macintosh on March 14th and ships with System 7.1.2 (System 7 for Power Macintosh). The same version (3.5) will also work as a client with Power Macintosh-based AppleShare servers (description to follow).

- **Power Macintosh Version**

AppleShare 4.0.2 will provide compatibility with Power Macintosh and will be available in May 1994. Version 4.0.2 will run on both 68040 Macintosh and Power Macintosh computers and will run in emulation mode on Power Macintosh.

There are no differences

between AppleShare 4.0.1 and AppleShare 4.0.2 when running on a 68040 Macintosh, so there is no need to upgrade to 4.0.2 for this environment. Customers wishing to run AppleShare on Power Macintosh must upgrade to version 4.0.2.

- **Upgrade Distribution**

AppleShare 4.0.2 will be available for a nominal fee to all users of AppleShare 4.0 or 4.0.1 and will be distributed as an Update Kit in the U.S. via a fulfillment house only. This special software kit contains the full AppleShare 4.0.2 software, but no manuals or serial numbers. A valid AppleShare 4 serial number is required to order the Update Kit.

Both the regular AppleShare 4 software kit and the AppleShare Upgrade Kit (for customers upgrading from AppleShare 2 or AppleShare 3) will be revved to version 4.0.2 and available through Apple's standard software distribution channels.

Customers in the United States and Pacific region who buy a PowerPC Logic Board upgrade to their Apple Workgroup Server 60 or 80 will receive the AppleShare 4.0.2 Update Kit as part of the Logic Board accessory kit.

Apple Remote Access

- **Compatibility at introduction**
AppleTalk Remote Access

1.0 Client and Server are incompatible with Power Macintosh.

The Apple Remote Access 2.0 Client and Personal Server are compatible with Power Macintosh running in emulation mode.

The Apple Remote Access MultiPort Server 2.0 is incompatible with Power Macintosh.

- **Power Macintosh Version**

Apple Remote Access MultiPort Server v.2.0.1 will provide Power Macintosh compatibility running in emulation mode. Version 2.0.1 is expected to ship in June 1994.

- **Upgrade Distribution**

Apple Remote Access MultiPort Server 2.0.1 will be available to all users of Apple Remote Access MultiPort Server 2.0 as an Update Kit via a fulfillment house for a nominal shipping and handling fee. The update kits will modify the Apple Remote Access MultiPort Server software only. No other changes are necessary. A valid Apple Remote Access MultiPort Server serial number is required to order the MultiPort Server Update Kit.

Owners of AppleTalk Remote Access Client/Server 1.0 wishing to run this software on a Power Macintosh must upgrade to version 2.0. These upgrades are available through regular Apple

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software distribution channels.

Apple Internet Router

- Compatibility as of Mar. 14

Apple Internet Router 3.0 is incompatible with Power Macintosh. The Apple Internet Router 3.0.1 is shipping now and is compatible with Power Macintosh running in emulation mode.

- Power Macintosh Version
Apple Internet Router 3.0.1

is currently available as both a full kit for new purchases and as a Tune-Up to upgrade from version 3.0.

- Upgrade Distribution

Apple Internet Router 3.0.1 is free to all users of Apple Internet Router 3.0 and is available as a Tune-up kit. The Tune-up kit provides a patch which can be installed over the Apple Internet Router 3.0. The Apple Internet Router 3.0.1 is available in the U.S. directly from Apple at 1-800-SOS-APPL, on

AppleLink, and on Apple's ftp servers. The regular Apple Internet Router 3.0.1 kits are available through Apple's normal software distribution channels.

A/UX

- Compatibility as of Mar. 14

A/UX is incompatible with Power Macintosh.

- Power Macintosh Version

Apple's strategy is to migrate A/UX server (Apple

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Apple LAN Systems – Power Macintosh Server Software Compatibility Matrix

PRODUCT	COMPATIBLE VERSION	UPGRADE METHOD	DATE AVAIL.	PRICE
AppleSearch Server	1.0.1	Patch – On AppleLink, ftp servers, or 1-800-SOS-APPL	May 1994	Free
AppleSearch Trial CD	1.0.1	Patch – Delivered with AppleSearch 1.0.1 Patch	May 1994	Free
AppleShare 3	Not Compatible	Upgrade to AppleShare 4.0.2 via AppleShare Upgrade Kit, available through dealer channel	May 1994	\$699.00
AppleShare 4	4.0.2	AppleShare 4.0.2 Update Kit – through fulfillment house	May 1994	TBD
AppleShare Pro	Not Compatible	N/A	N/A	N/A
Apple Remote Access MultiPort Server	2.0.1	Apple Remote Access MultiPort Server 2.0.1 Update Kit	June 1994	TBD
Apple Remote Access Personal Server	2.0	N/A	Now	N/A
Apple Internet Router	3.0.1	Upgrades from version 3.0 on AppleLink and ftp servers – or call 1-800-SOS-APPL	Now	Free
PowerShare Collaboration	1.0 with PowerTalk Manager 1.0.2	Available on AppleLink, ftp servers, and dealer channels	TBD	TBD
A/UX	Not Compatible	Distribution of upgrades from A/UX to PowerOpen to be announced at a later date	TBD	TBD

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Workgroup Server 95) customers to PowerOpen, which is based on IBM's AIX UNIX operating system. PowerOpen availability dates have not yet been announced.

- Distribution

The distribution plan for software upgrades from A/UX to PowerOpen will be announced at a later date.

System 7 Pro: PowerShare Collaboration Servers

- Compatibility at introduction

PowerShare Collaboration Servers 1.0 and System 7 Pro (including PowerTalk) are incompatible with Power Macintosh at the March 14th Desktop Introduction. This is because the PowerTalk Manager needs to be revised to work with Power

Macintosh.

- Power Macintosh version

PowerTalk Manager 1.0.2 is required to use either System 7 Pro or PowerShare Collaboration Servers on a Power Macintosh computer. A new Install Me First disk containing the PowerTalk Manager 1.0.2 will be available at the time of Power Macintosh introduction.

- Upgrade distribution

This disk is available from the following electronic bulletin board services:

The Safe House
DesignLink BBS
MacHaven BBS,
America Online
Connect Inc.
General Videotex Corp./
Delphi
Toronto Mac Developers
Association

John Crow
The Rest of Us,
Resource Central, Inc.
(Genie)
San Diego Macintosh User
Group
TwinCity Mac
Information Access
Technologies, Inc.
MacRefuge BBS
MAUG/Micronetworked
Apple (CompuServe)
Users
MauiLink
Netrunner BBS
North Start computer Ltd.
PressLink, Inc.
Deep Cove BBS
ZiffNet
Alaska Mac
Greyland BBS
Mac's Place BBS

It is also available from Apple user groups, the Apple Volume License program, and Apple resellers. 🍏

Apple LAN Systems – Power Macintosh Client Software Compatibility Matrix

PRODUCT	COMPATIBLE VERSION	UPGRADE METHOD	DATE AVAIL.	PRICE
AppleSearch Client	1.0	N/A	Now	N/A
AppleShare Client (not sold stand-alone)	3.5	Already ships with AppleShare 4.0/4.0.1, AppleShare Pro; will ship with System 7.1.2	Now	Free
AppleTalk Remote Access 1.0	Not Compatible	Upgrade to ARA 2.0 Client or Personal Server, available through dealer channel	Now	Client: \$29.00 Pers. Svr: \$79.00
Apple Remote Access Client for Macintosh	2.0	N/A	Now	N/A
System 7 Pro	System 7 Pro with PowerTalk Manager 1.0.2	Available on AppleLink, ftp servers, and dealer channel	Now	Free

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